

SR 1 Speed Study

Dewey Beach to MD State Line

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June 8, 2021

Study Overview

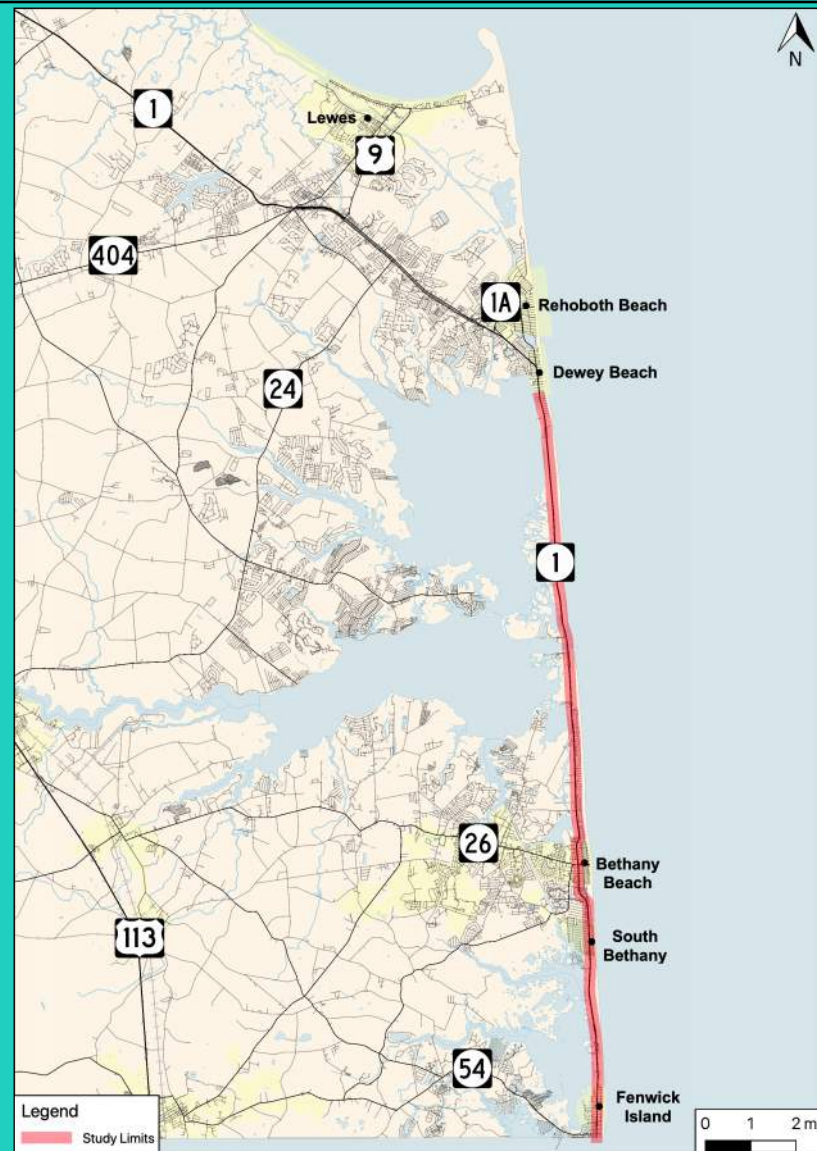
SR 1 (Dewey Beach to MD State Line) - Sussex County, DE

Reasons for Investigation

- Local community reported concerns of vehicular speeding and pedestrian/bicyclist safety on SR 1

Study Objective

- Evaluate existing speed and crash data, existing speed limits and roadway conditions, and pedestrian/bicyclist activity along SR 1 to confirm speeding or safety concerns



Data Collection

Device Types and Locations

ATR Tubes – 14 Locations

- Portable ATR tubes collected speed data, traffic volumes, and vehicle classification data
- Northbound and southbound data
- Data from September 2020 (1 week)

Bluetooth Devices – 5 Devices (4 Links)

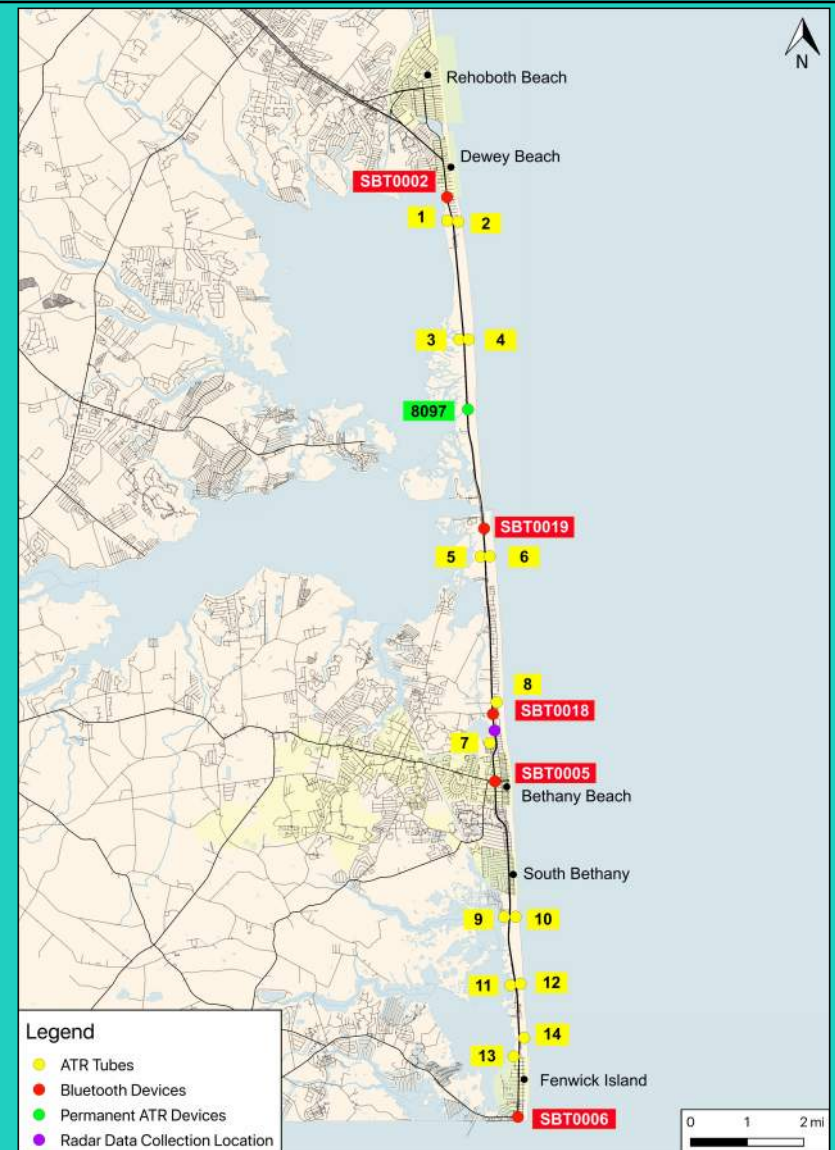
- Existing, permanent devices collect travel times which are used to determine average speed between detectors
- Some Bluetooth links encompass multiple speed limit zones, and therefore are displayed as weighted averages across the link
- Northbound and southbound data
- Data from October 2019

Permanent ATR – 1 Location

- Existing, permanent device collects 85th percentile speed of vehicles in each lane of SR 1
- Northbound and southbound data
- Data from October 2019

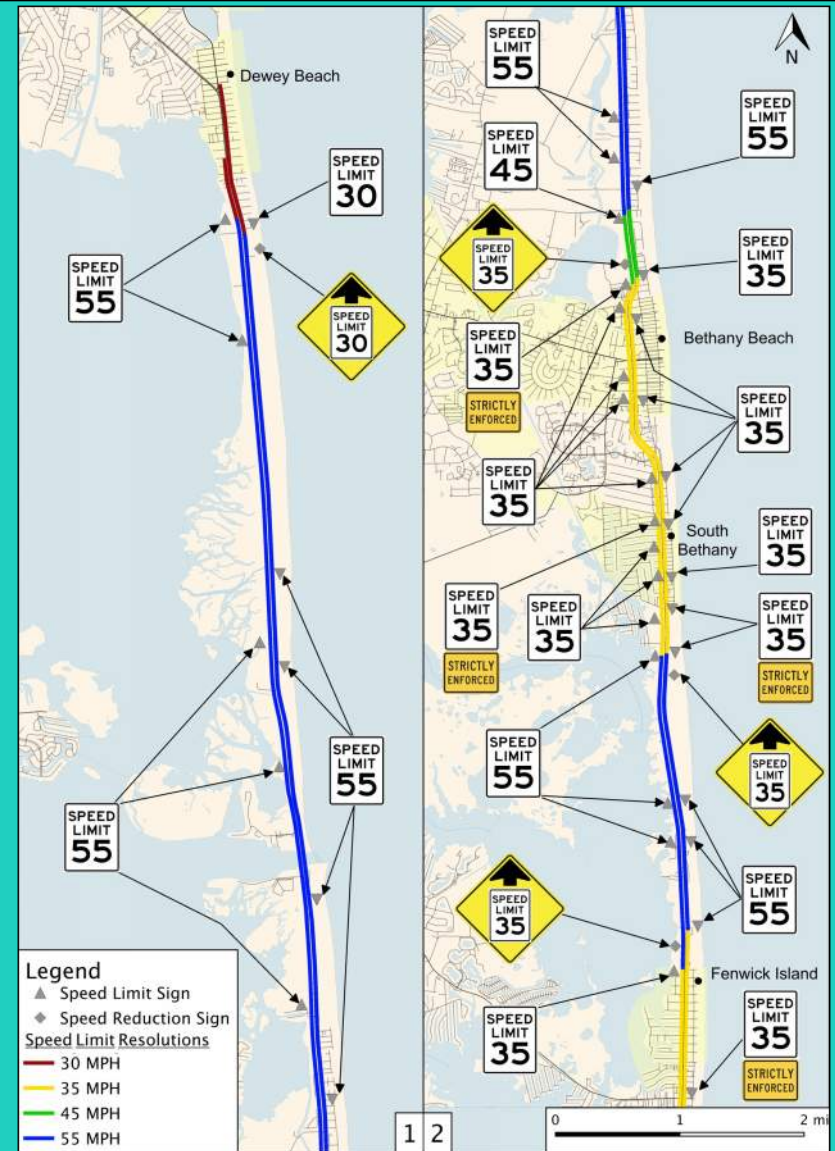
Radar Gun – 1 Location

- Average and 85th percentile speeds collected
- Northbound and southbound data
- Data from June 2016, 11 am to 12:15 pm



Study Area Speed Limits

Speed limits ranging from 30 MPH to 55 MPH exist within the study limits

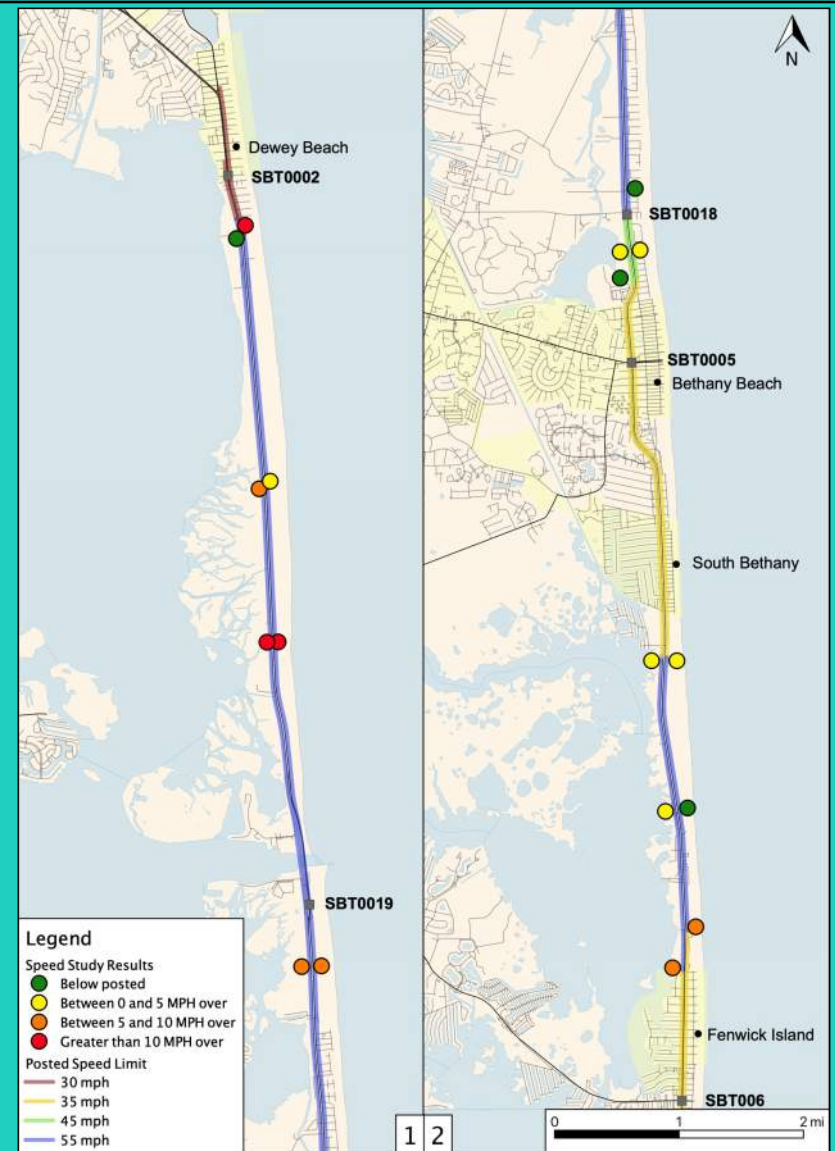


Study Area Speed Trends

85th percentile speed data in both directions was compared to posted speed limits

Notable Location Concerns:

- Vehicles are traveling greater than 10 mph over the speed limit:
 - Near Savages Ditch Rd, north of the Indian River Inlet Bridge (northbound and southbound)
 - South of Dewey Beach (northbound)
- Vehicles are traveling between 5 and 10 mph over the speed limit:
 - Between Dewey Beach and Savages Ditch Rd (southbound)
 - South of the Indian River Inlet Bridge (northbound and southbound)
 - Just north of Fenwick Island (northbound and southbound)



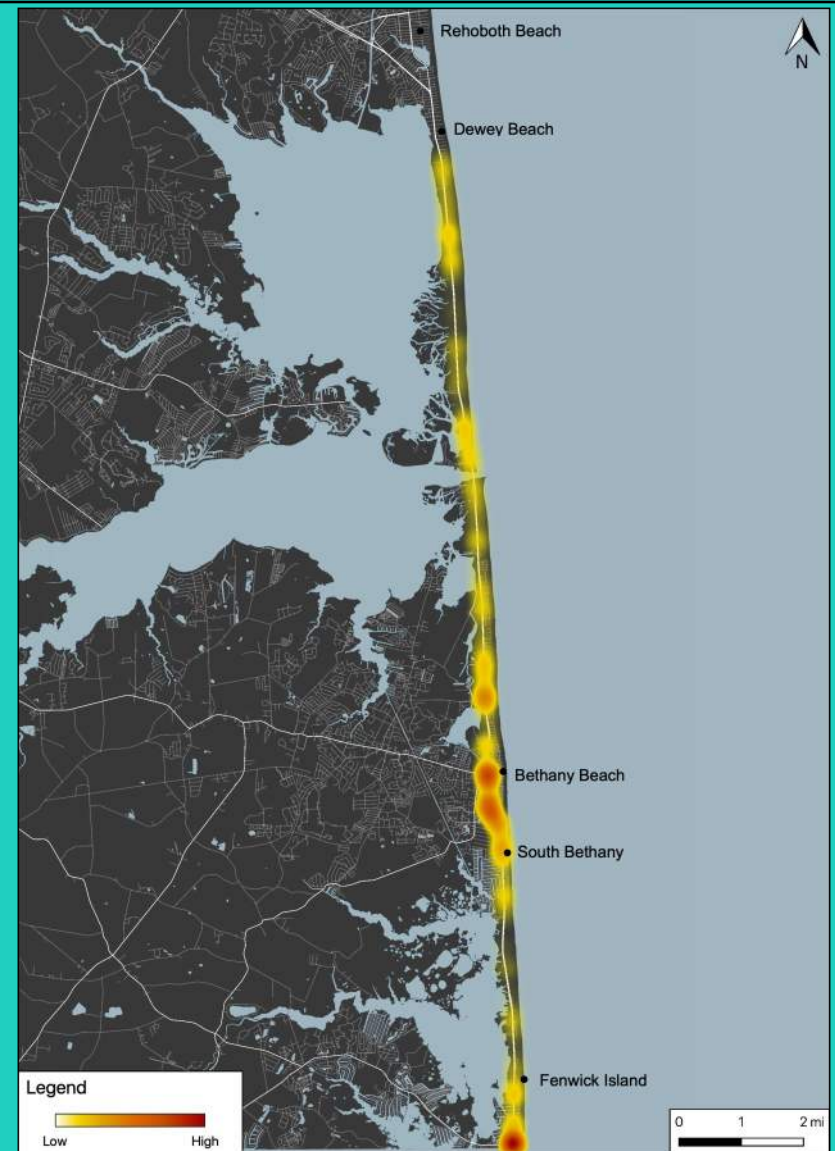
Study Area Crash Trends

5 years of crash data was collected for the study area (1/1/16 to 12/31/20):

- 435 total crashes
 - 8 fatal crashes
 - 76 personal injury crashes
 - 351 property damage only crashes
- 23 bicycle related crashes
- 9 pedestrian related crashes

Notable Crash Trends:

- Crash hot spots in Bethany Beach and Fenwick Island



Segment Breakdown

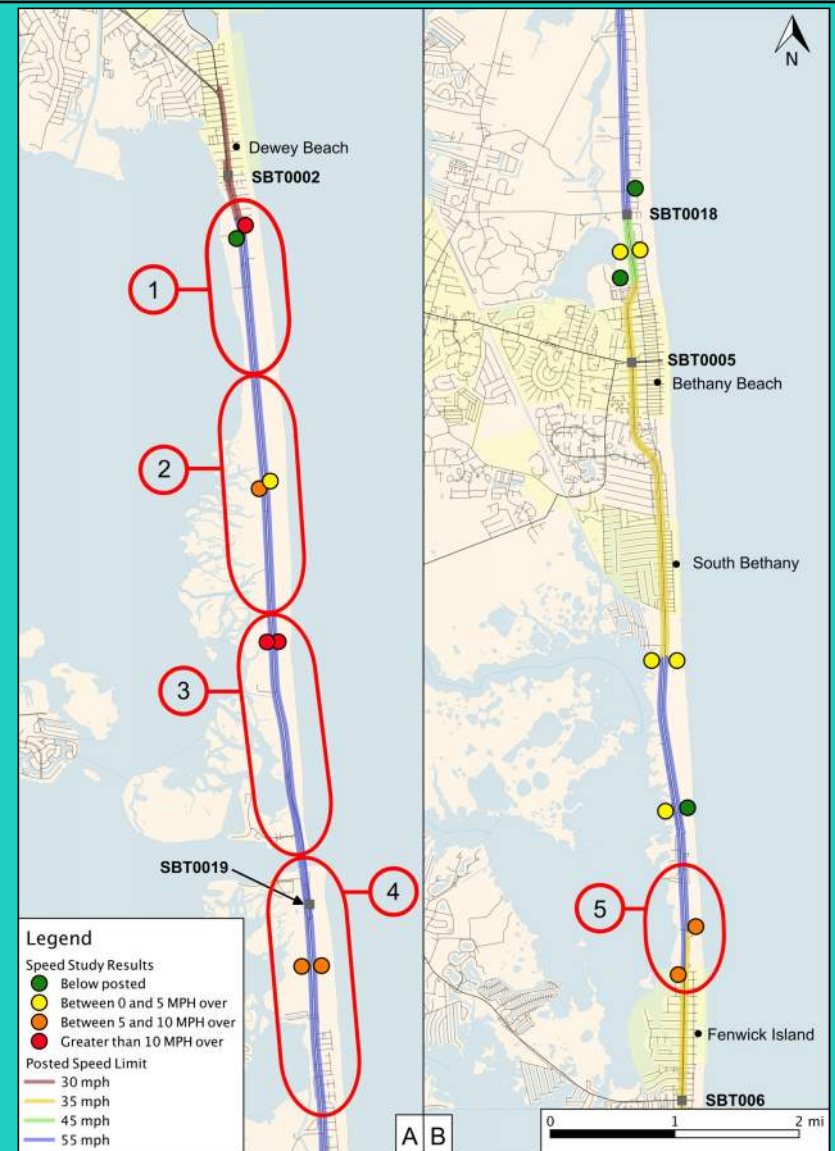
Corridor was divided into 10 segments for detailed study, based on speed limit and roadway characteristics:

- **Segment 1:** Hall Avenue to Savages Ditch Road
- **Segment 2:** Savages Ditch Road to Indian River Inlet Bridge
- **Segment 3:** Indian River Inlet Bridge to Fresh Pond Trail
- **Segment 4:** Fresh Pond Trail to 45 MPH speed limit zone
- **Segment 5:** 45 MPH speed limit zone to 35 MPH speed limit zone
- **Segment 6:** 35 MPH speed limit zone to southern limits of Bethany Beach
- **Segment 7:** Southern limits of Bethany Beach to northern limits of South Bethany
- **Segment 8:** Northern limits of South Bethany to 55 MPH speed limit zone
- **Segment 9:** 55 MPH speed limit zone to 35 MPH speed limit zone
- **Segment 10:** 35 MPH speed limit zone to DE/MD state line



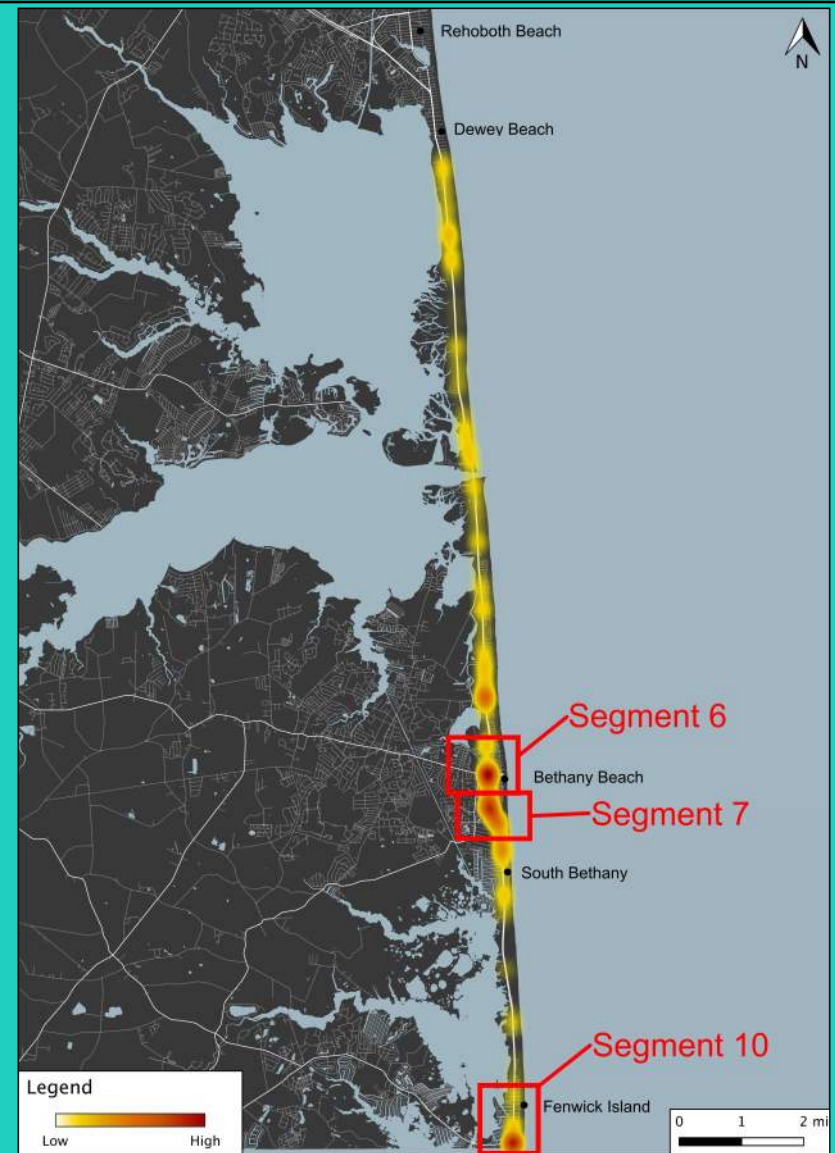
Conclusions: Speed

- Speeding concerns were noted along the corridor, especially in the following locations:
 1. South of Dewey Beach
 2. Between Dewey Beach and Savages Ditch Road
 3. Near Savages Ditch Road, north of the Indian River Inlet Bridge
 4. South of the Indian River Inlet Bridge
 5. Just north of Fenwick Island



Conclusions: Crashes

- Crash rates below state average except for the following segment:
 - Segment 6 – within Bethany Beach municipal Limits
 - Segment 7 – between Bethany Beach and South Bethany
 - Segment 10 – within Fenwick Island municipal limits
- Deer collisions account for a significant number of crashes for all segments north of Bethany Beach
- Crash trends
 - Motorists not seeing bicyclists (Segment 7)
 - Pedestrians under the influence (Segment 9)
 - Rear-end/angle crashes at SR 54 intersection (Segment 10)
 - No speed-related crash trends were identified
- Crash hot spots in Bethany Beach and Fenwick Island
 - Bethany Beach (Segment 6): 68 total crashes, 3 involving bicyclists
 - South of Bethany Beach (Segment 7): 67 total crashes, 11 involving bicyclists and one involving a pedestrian
 - Fenwick Island (Segment 10): 77 total crashes, 1 involving a bicyclist and 1 involving a pedestrian



Recommendations

- Recommend speed limits remain as currently posted for all segments
- Recommend proposed signing installations including:
 - “Strictly Enforced” plaques installed below select speed limit signs, as shown
 - Additional northbound speed limit sign north of the Indian River Inlet Bridge, as shown
- Recommend targeted enforcement where “Strictly Enforced” signs are recommended

